

ABSTRACT

Disclosed is a method for driving a liquid-jet head comprising a passage-forming substrate in which pressure generating chambers communicating with nozzle orifices are formed; and a piezoelectric element provided on one surface of the passage-forming substrate via a vibration plate, and consisting of a lower electrode, a piezoelectric layer, and an upper electrode. The piezoelectric layer consists of a relaxor ferroelectric. A voltage between a potential V_1 , at which the capacitance of the piezoelectric element is maximal in a capacitance-potential curve of the piezoelectric element, and a potential V_2 , which has a larger absolute value than the absolute value of the potential V_1 and at which an inflection point in the capacitance-potential curve is reached, is set as a drive start potential V_0 . The piezoelectric element is driven using a drive waveform having an ejection step for changing the potential from the drive start potential V_0 to a potential V_3 , at which a driving electric field having an electric field strength of 100 to 500 kV/cm is generated in the piezoelectric layer, to contract the pressure generating chamber, thereby ejecting liquid droplets through the nozzle orifice.